

What is claimed:

1. A method of treating a pathogenic disorder, said method comprising administering to a patient in need thereof an effective amount of a substance that modulates POD structure and/or function.
2. The method according to claim 1, wherein the disorder is a viral infection.
3. The method according to claim 2, wherein the viral infection is hepatitis virus infection, herpes virus infection, human T-cell leukemia virus infection, human immunodeficiency virus infection, varicella virus infection, papilloma virus infection or adenovirus infection.
4. The method according to claim 1, wherein the disorder is a cancer.
5. The method according to claim 4, wherein the cancer is a leukemia.
6. The method according to claim 1, wherein the disorder is an inflammatory disorder.
7. The method according to claim 1, wherein the disorder is an autoimmune disorder.
8. A method of treating a pathogenic disorder, said method comprising administering to a patient in need thereof an effective amount of a substance that increases the level of a POD-localized protein.
9. The method according to claim 8, wherein the disorder is a viral infection.
10. The method according to claim 9, wherein the viral infection is hepatitis virus infection, herpes virus infection, human T-cell leukemia virus infection, human immunodeficiency virus infection, varicella virus infection, papilloma virus infection or adenovirus infection.
11. The method according to claim 8, wherein the disorder is a cancer.
12. The method according to claim 11, wherein the cancer is a leukemia.

13. The method according to claim 8, wherein the disorder is an inflammatory disorder.

14. The method according to claim 8, wherein the disorder is an autoimmune disorder.

15. A method of treating a viral infection, said method comprising administering to a patient in need thereof an effective amount of a substance that disrupts the interaction of a viral protein with a POD-localized protein.

16. The method according to claim 15, wherein the viral infection is hepatitis virus infection, herpes virus infection, human T-cell leukemia virus infection, human immunodeficiency virus infection, varicella virus infection, papilloma virus infection or adenovirus infection.

17. A method of testing viral vectors to eliminate candidate vectors that are not useful for gene therapy, said method comprising:

- (a) transfecting a test cell with a test viral vector or infecting a test cell with a virus; and
- (b) assaying for the ability of the vector or virus to modulate POD function and/or structure,

wherein a vector or virus that modulates POD function and/or structure is not useful for gene therapy.

18. A method of treating a pathogenic disorder, said method comprising administering to a patient in need thereof a nucleic acid construct comprising an exogenous nucleic acid encoding a therapeutic polypeptide and a nucleic acid fragment encoding a POD-localized protein or fragment thereof.

19. The method according to claim 18, wherein the POD-localized protein or fragment thereof is selected from the group consisting of PML, Sp-100, CBP, PIF13, PIF31, ND52, ND55, Isp20, and DipA.

20. A method of treating a pathogenic disorder, said method comprising administering to a patient in need thereof a composition comprising a therapeutic polypeptide and a POD-localized protein or fragment thereof.

21. The method according to claim 20, wherein the POD-localized protein or fragment thereof is selected from the group consisting of PML, Sp-100, CBP, PIF13, PIF31, ND52, ND55, Isp20, and DipA.

22. A method of delivering an exogenous nucleic acid encoding a therapeutic polypeptide to a subject in need thereof, said method comprising administering to said subject a nucleic acid construct comprising said exogenous nucleic acid and a nucleic acid fragment encoding a POD-localized protein or fragment thereof.

23. The method according to claim 22, wherein the POD-localized protein or fragment thereof is selected from the group consisting of PML, Sp-100, CBP, PIF13, PIF31, ND52, ND55, Isp20, and DipA.

24. A method of delivering a therapeutic polypeptide to a subject in need thereof, said method comprising administering to said subject a composition comprising said polypeptide and a POD-localized protein or fragment thereof.

25. The method according to claim 24, wherein the POD-localized protein or fragment thereof is selected from the group consisting of PML, Sp-100, CBP, PIF13, PIF31, ND52, ND55, Isp20, and DipA.